



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

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www.miamidade.gov/economy

GAF

**1361 Alps Road
Wayne, NJ 07470**

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: GAF EverGuard® Freedom™ TPO HW, EverGuard Extreme® Freedom™ TPO HW and EverGuard® Freedom™ TPO with RapidSeam™ Technology over Steel Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews and revises NOA No. 08-1124.05 and consists of pages 1 through 22.
The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 14-0204.04
Expiration Date: 04/29/19
Approval Date: 04/03/14
Page 1 of 22

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Single Ply Roofing
Material:	TPO
Deck Type:	Steel
Maximum Design Pressure:	-75 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
EverGuard® Freedom™ TPO with RapidSeam™ Technology	Various	ASTM D6878 TAS 131	Self-adhered thermoplastic olefin reinforced membrane with self-adhering laps.
EverGuard® Freedom™ TPO HW	Various	ASTM D6878 TAS 131	Self-adhered thermoplastic olefin reinforced membrane with a heat weldable seam.
EverGuard Extreme® Freedom™ TPO HW	Various	ASTM D6878 TAS 131	Self-adhered thermoplastic olefin reinforced membrane with a heat weldable seam designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Coated Metal	4' x 10' sheets	Proprietary	24 gauge steel with a 25 mil thick GAF TPO for edge detailing.
EverGuard Extreme® TPO Coated Metal	4' x 10' sheets	Proprietary	24 gauge steel with a 25 mil thick GAF TPO for edge detailing and designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Cover Tape	6" x 100' 10" x 100'	Proprietary	GAF TPO laminated to white butyl tape primarily used for edge metal details.
EverGuard® TPO Cover Tape Heat-Weld™	6" x 100'	Proprietary	Manufactured from reinforced GAF TPO laminated to a six inch wide strip, half the strip with a self-adhered side and half the strip with a heat-weldable edge; used for edge metal details.
EverGuard Extreme® TPO Cover Tape Heat-Weld™	6" x 100'	Proprietary	Manufactured from reinforced GAF TPO designed to protect against heat aging and UV degradation laminated to a six inch wide strip, half the strip with a self-adhered side and half the strip with a heat-weldable edge; used for edge metal details.
EverGuard® TPO Detailing Membrane	24" x 50'	Proprietary	Unreinforced flashing material manufactured from GAF TPO.



<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
EverGuard Extreme® TPO Detailing Membrane	24" x 50'	Proprietary	Unreinforced flashing material manufactured from GAF TPO designed to protect against heat aging and UV degradation.
EverGuard® TPO Flashing Strip	Various	Proprietary	Reinforced flashing membrane manufactured from GAF TPO.
EverGuard Extreme® TPO Flashing Strip	Various	Proprietary	Reinforced flashing membrane manufactured from GAF TPO designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Pourable Sealer Pocket	9" x 6" x 4" oval with 3" base flange	Proprietary	Pourable sealer pocket is molded with GAF TPO compound to a nominal 70 mil thickness designed for waterproofing irregular shaped roof penetrations.
EverGuard Extreme® TPO Pourable Sealer Pocket	9" x 6" x 4" oval with 3" base flange	Proprietary	Pourable sealer pocket is molded from GAF TPO designed for advanced protection against heat aging and UV degradation compounded to a nominal 70 mil thickness designed for waterproofing irregular shaped roof penetrations.
EverGuard® TPO RTA (Roof Transition Anchor) Strip™	6" x 100' roll	Proprietary	Reinforced GAF TPO membrane with pressure sensitive adhesive primarily used to secure membrane transitions from the field to vertical surfaces.
EverGuard® TPO Split Pipe Boot	1" - 2" 3" - 5" 6" - 8"	Proprietary	Reinforced GAF TPO membrane split to accommodate most common pipes and conduits.
EverGuard Extreme® TPO Split Pipe Boot	1" - 2" 3" - 5" 6" - 8"	Proprietary	Reinforced GAF TPO designed for advanced protection against heat aging and UV degradation split to accommodate most common pipes and conduits.
EverGuard® TPO Square Tube Wrap	Various	Proprietary	Reinforced GAF TPO with split design overlap to be wrapped around square or rectangular tubing.
EverGuard Extreme® TPO Square Tube Wrap	Various	Proprietary	Reinforced GAF TPO designed for advanced protection against heat aging and UV degradation with split design overlap to be wrapped around square or rectangular tubing.
EverGuard® TPO Corner Curb Wrap	Various	Proprietary	Corners fabricated from reinforced GAF TPO.

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
EverGuard Extreme® TPO Corner Curb Wrap	Various	Proprietary	Corners fabricated from reinforced GAF TPO designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Scupper	8" x 10" x 12"	Proprietary	Scupper manufactured from EverGuard® TPO Coated Metal.
EverGuard® TPO T-Joint Cover Patch	100 patches per box	Proprietary	EverGuard® TPO T-Joint Cover Patch manufactured from unreinforced GAF TPO.
EverGuard Extreme® TPO T-Joint Cover Patch	100 patches per box	Proprietary	EverGuard® TPO T-Joint Cover Patch manufactured from unreinforced GAF TPO designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Vent	2 vents per carton	Proprietary	Vent manufactured out of reinforced GAF TPO membrane and galvanized steel.
EverGuard® TPO T-Top Vent	4" or 6"	Proprietary	Vent manufactured from reinforced GAF TPO membrane and galvanized steel.
EverGuard® TPO Walkway Rolls	Rolls 1/8"x30"x50'	Proprietary	Standard duty walkway rolls.
EverGuard® TPO Inside Corner	6" x 6" x 5/4"	Proprietary	Inside corner manufactured from unreinforced GAF TPO.
EverGuard Extreme® TPO Inside Corner	6" x 6" x 5/4"	proprietary	Inside corner manufactured from unreinforced GAF TPO designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Universal Corners	Various	Proprietary	Universal corners are heat seamable and designed to accommodate both inside and outside corners of base and curb flashings manufactured of GAF TPO.
EverGuard Extreme® TPO Universal Corners	Various	Proprietary	Universal corners are heat seamable and designed to accommodate both inside and outside corners of base and curb flashings manufactured from GAF TPO designed for advanced protection against heat aging and UV degradation.
EverGuard® TPO Vent Boot	1" - 6" o.d. 6 pcs. crtn.	Proprietary	Vent pipe boot molded from GAF TPO and supplied with stainless steel clamping rings.
EverGuard Extreme® TPO Vent Boot	1" - 6" o.d. 6 pcs. crtn.	Proprietary	Vent pipe boot molded from GAF TPO designed for advanced protection against heat aging and UV degradation and supplied with stainless steel clamping rings.



<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
EverGuard® TPO Expansion Joint Cover	Various	Proprietary	Low profile joint cover manufactured from reinforced GAF TPO.
EverGuard® TPO Cut Edge Sealant	1 quart squeeze tube	Proprietary	Clear solvent based sealant for TPO cut edges.
EverGuard® TPO Drain	Various	Proprietary	Spun aluminum drain preflashed with un-reinforced GAF TPO.
EverGuard® TPO Seam Cleaner	1 gallon	Proprietary	Solvent based seam cleaner.
EverGuard® TPO Standing Seam Tape	6"	Proprietary	A white butyl tape.
EverGuard® TPO Batten Seam Profile	10' length 1 ½" base 1 ¼" vertical rib	Proprietary	Accessory applied over GAF TPO roofing system to simulate a standing seam metal roof.
EverGuard® TPO Standing Seam Profile	10' length 1 ½" base 1 ¼" vertical rib	Proprietary	Accessory applied over GAF TPO roofing systems to simulate a standing seam metal roof.
EverGuard® TPO Fluted Corner	8" diameter nominal .05" non-reinforced	Proprietary	Flashing for outside corners of base and curb flashing manufactured from non-reinforced GAF TPO.
EverGuard Extreme® TPO Fluted Corner	8" diameter nominal .05" non-reinforced	Proprietary	Flashing for outside corners of base and curb flashing manufactured from non-reinforced from GAF TPO designed for advanced protection against heat aging and UV degradation.
WeatherWatch® XT	36" x 50' rolls 36" x 66.7' rolls	ASTM D1970	Mat surfaced SBS modified, fiberglass reinforced, bituminous sheet material for use as a leak barrier underlayment or vapor retarder.
UnderRoof™ 2 Polyester-Surfaced Leak Barrier	39 ¾" x 67.8' rolls	ASTM D1970	Self-adhering reinforced membrane of SBS modified asphalt with polyester surfacing for use as a leak barrier underlayment or vapor retarder.
UnderRoof™ HT	39 ¾" x 61.0' rolls	ASTM D1970	Self-adhering SBS membrane with a top surface and reinforcement consisting of a coated polyester mat for us as a leak barrier underlayment or vapor retarder.
StormSafe™ Anchor Sheet	40" Wide	ASTM D4601	A synthetic anchor sheet manufactured of polypropylene woven fabric coated on both sides with polypropylene.
Topcoat® Membrane	1, 5 or 55 gallons	ASTM D6083	An acrylic, water based elastomeric membrane system designed to protect various types of roofing surfaces.



<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Topcoat [®] TPO Red Primer	1 gallon	Proprietary	Tinted primer used on TPO to improve adhesion of Topcoat [®] coatings.

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
EnergyGuard [™] Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard [™] Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard [™] RA Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard [™] RA Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard [™] RH Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard [™] RH Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard [™] RN Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard [™] RN Tapered Polyiso Insulation	Polyisocyanurate foam insulation	GAF
EnergyGuard [™] Perlite Roof Insulation	Perlite insulation board.	GAF
EnergyGuard [™] Perlite Recover Board	Perlite recover board	GAF
Securock [®] Gypsum-Fiber Roof Board	Gypsum board	USG
Structodek [®] High Density Fiberboard Roof Insulation	High density wood fiberboard	Blue Ridge FiberBoard, Inc.
DensDeck [®] Roof Board, DensDeck [®] Prime [®] Roof Board, DensDeck [®] DuraGuard [®] Roof Board	Gypsum board	Georgia-Pacific Gypsum LLC



APPROVED FASTENERS:

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	Drill-Tec™ #12 Fastener	Phillips head, modified buttress thread, pinch point, carbon steel fastener for use in steel or wood decks. With CR-10 coating. Available with a pinch point or drill point.	#12 x 8" max. length, #3 Phillips head	GAF
2.	Drill-Tec™ #14 Fastener	Truss head, self-drilling, pinch point, high thread fastener for use in steel, wood or concrete decks.	#14 x 16" max. length, #3 Phillips head	GAF
3.	Drill-Tec™ XHD Fastener	Truss head, self-drilling, pinch point, high thread fastener for use in wood or steel decks.	#15 x 16" max. length, #3 Phillips head	GAF
4.	Drill-Tec™ 3” Steel Plate	Round Galvalume® steel stress plate with reinforcing ribs and recessed for use with Drill-Tec™ fasteners.	3” Round	GAF
5.	Drill-Tec™ 3” Standard Steel Plate	Galvalume® coated steel stress plate for use with approved Drill-Tec™ fasteners.	3” Round	GAF
6.	Drill-Tec™ AccuTrac® Flat Plate	A2-SS aluminized steel plate for use with Drill-Tec™ fasteners.	3" square; .017" thick	GAF
7.	Drill-Tec™ AccuTrac® Recessed Plate	Galvalume® steel plate with recess for use with Drill-Tec™ fasteners.	3" square; .017" thick	GAF
8.	Drill-Tec™ ASAP 3S	Drill-Tec™ #12 Fastener with Drill-Tec™ 3" Standard Steel Plate.	#12 x 8" max. length, #3 Phillips head w/ 3” Round Plate	GAF
9.	Drill-Tec™ 3” Ribbed Galvalume Plate (Flat)	Round Galvalume® plated steel stress plate with reinforcing ribs for use with Drill-Tec™ fasteners.	3” Round	GAF



EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Report</u>	<u>Name</u>	<u>Date</u>
UL LLC	UL 790	R10689	03/14/13
	UL 790	R1306	05/22/13
	Physical Properties	09CA55838	12/04/10
Factory Mutual Research Corp.	3020588	FM4470	03/24/04
	3023458	FM4450	07/18/06
	3044862	FM4470	05/11/12
	3044506	FM4470	03/28/12
	3046328	FM4470	09/13/12
	3023458	FM4450	07/18/06
	3046081	FM4470	02/13/13
PRI Construction Material Technologies, LLC	GAF-426-02-01	ASTM D6878	01/27/14
	GAF-501-02-01	ASTM D6878	01/27/14
	GAF-423-02-01	ASTM D6878	01/27/14
	GAF-343-02-01	ASTM D1970	04/23/12
	GAF-344-02-01	ASTM D1970	04/23/12
	GAF-275-02-01	ASTM D1970	11/29/10
	GAF-435-02-08	TAS 114-J	01/29/14
	GAF-435-02-07	TAS 114-J	01/29/14
	GAF-065-02-01	ASTM D6083	07/08/05
	GAF-082-02-01	ASTM D6083	05/09/06
	GAF-369-02-01	ASTM D1289	10/22/12
	GAF 499-02-01	ASTM D6083	03/12/14
	GAF-245-02-01	ASTM D6083	06/10/10
	GAF-084-02-01	ASTM D6083	05/09/06
	GAF-276-02-0-R1	ASTM D6083	01/03/11
Trinity ERD	G121110.12.08	ASTM D4601	12/02/08
Momentum Technologies, Inc.	EX14A3A	ASTM D6083	02/26/04



APPROVED ASSEMBLIES:

- Membrane Type:** TPO
- Deck Type II:** Steel, Insulated
- Deck Description:** Min. 22 gauge, 33 ksi, FM approved deck.
- System Type B(1):** Insulation adhered, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer (Thermal Barrier)	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck® DuraGuard® Roof Board, Securock® Gypsum-Fiber Roof Board Minimum ½” thick	1, 2, 4, 6, 8	1:2.7 ft²

Vapor Retarder: UnderRoof™ 2 Polyester-Surfaced Leak Barrier or UnderRoof™ HT is self-adhered to the Base insulation (thermal barrier) and rolled with a weighted roller.

One or more layers of any of the following insulations (maximum 12.0 total thickness).

Middle Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
EnergyGuard™ Polyiso Insulation, EnergyGuard™ Tapered PolyIso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RA Tapered Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RH Tapered Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation, EnergyGuard™ RN Tapered Polyiso Insulation Minimum 1.5” thick	N/A	N/A

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, Securock® Gypsum-Fiber Roof Board Minimum ¼” thick	N/A	N/A

Note: Middle and optional Top Insulation if present is adhered to the vapor barrier with OlyBond 500® Adhesive Fastener or Olybond 500® Green applied in 0.75 – 1.0 in. wide beads at a maximum spacing of 12 in. o.c.

Membrane: EverGuard® Freedom™ TPO with RapidSeam™ Technology adhered to insulation with a minimum 6” side lap fully self-adhered. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.
OR
One layer of EverGuard® Freedom™ TPO HW or EverGuard Extreme® Freedom™ TPO HW self-adhered with 3” side laps sealed with a 1.5” wide heat weld for automatic machine welding. Weld width shall be a minimum 2” width for hand welding. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.



**Surfacing:
(Optional)**

Chosen components must be applied in accordance with manufacturer's application instructions. All coatings must be listed within a current NOA.

1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

Maximum Design

Pressure: -45 psf. (See General Limitation # 9)



- Membrane Type:** TPO
- Deck Type 2I:** Steel, Insulated
- Deck Description:** Minimum 22 ga. Type B, steel deck, Grade 33 secured to minimum 1/4" thick steel structural supports space at maximum 6 ft. o.c. with ITW Buildex Traxx/4 or Traxx/5 spaced at 6" o.c. Deck side laps are secured with Traxx/1 fasteners spaced at maximum 24" o.c.
- System Type B(2):** Base layer of insulation mechanically attached to roof deck. Any subsequent layers are then adhered to base layer of insulation. Membrane is subsequently adhered to insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

- Thermal Barrier: (Optional)** Minimum 1/2" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, 1/2" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.
- Vapor Barrier: (Optional)** Weather Watch® XT, UnderRoof™ 2 Polyester-Surfaced Leak Barrier or UnderRoof™ HT is self-adhered to the thermal barrier (must be applied to the thermal barrier, excluding EnergyGuard™ Perlite Roof Insulation).

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 2" thick	1, 2, 3, 4, 5, 6, 7	1:2 ft ²

Note: Base layers of insulation shall be mechanically through the optional vapor retarder and thermal barrier (when present) into the steel deck using the fastener density listed. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation Minimum 1" thick	N/A	N/A

Note: Optional top layer of insulation shall be adhered with OlyBond 500® or Olybond 500® Green applied in continuous 1/4" wide beads at a maximum spacing of 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.



Membrane: EverGuard® Freedom™ TPO with RapidSeam™ Technology adhered to insulation with a minimum 6” side lap fully self-adhered. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.

OR

One layer of EverGuard® Freedom™ TPO HW or EverGuard Extreme® Freedom™ TPO HW self-adhered with 3” side laps sealed with a 1.5” wide heat weld for automatic machine welding. Weld width shall be a minimum 2” width for hand welding. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.

**Surfacing:
(Optional)** **Chosen components must be applied in accordance with manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer’s specifications and applicable Building Codes.
2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



- Membrane Type:** TPO
- Deck Type 2I:** Steel, Insulated
- Deck Description:** Minimum 22 ga. Type B, steel deck, Grade 33 secured to minimum 1/4" thick structural supports spaced at maximum 6 ft. o.c. with ITW Buildex Traxx/5 spaced at 6" along the center of the supports. Deck side laps are secured with Traxx/1 fasteners spaced at maximum 24" o.c.
- System Type B(3):** Base layer of insulation mechanically attached to roof deck. Any subsequent layers are then adhered to base layer of insulation. Membrane is subsequently adhered to insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

- Thermal Barrier: (Optional)** Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, DensDeck® DuraGuard® Roof Board, 1/2" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.
- Vapor Barrier: (Optional)** Weather Watch® XT, UnderRoof™ 2 Polyester-Surfaced Leak Barrier or UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard™ Perlite Roof Insulation).

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RA Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 2" thick	1, 2, 3, 4, 5, 6, 7	1:2 ft ²

Note: Base layers of insulation shall be mechanically attached through the optional vapor retarder and thermal barrier (when present) into the steel deck using the fastener density listed. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
Securock® Gypsum-Fiber Roof Board Minimum 1/4" thick	N/A	N/A

Note: Top layer of insulation shall be adhered with OlyBond 500® or Olybond 500® Green applied in continuous 3/4" wide beads at a maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.



Membrane: One layer of EverGuard® Freedom™ TPO with RapidSeam™ Technology adhered to insulation with a minimum 6" side lap fully self-adhered. The membrane broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.

OR

One layer of EverGuard® Freedom™ TPO HW or EverGuard Extreme® Freedom™ TPO HW self-adhered with 3" side laps sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.

**Surfacing:
(Optional)** **Chosen components must be applied in accordance with manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)



Membrane Type: TPO
Deck Type II: Steel, Insulated
Deck Description: Min. 22 gauge, 33 ksi, FM approved deck.
System Type C(1): All layers of insulation are mechanically attached to the roof deck. Membrane is adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Thermal Barrier: Minimum 1/2" DensDeck® DuraGuard® Roof Board, DensDeck® Prime® Roof Board or Securock® Gypsum-Fiber Roof Board loose laid.
Vapor Retarder: Weather Watch® XT, UnderRoof™ 2 Polyester-Surfaced Leak Barrier or UnderRoof™ HT is self-adhered to the thermal barrier and rolled with a weighted roller.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.5" thick	1, 2, 4, 5, 6, 7, 8	1:2 ft ²
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 2.0" thick	1, 2, 4, 5, 6, 7, 8	1:4 ft ²

Membrane: EverGuard® Freedom™ TPO with RapidSeam™ Technology adhered to insulation with a minimum 6" side lap fully self-adhered. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.
 OR
 One layer of EverGuard® Freedom™ TPO HW or EverGuard Extreme® Freedom™ TPO HW self-adhered with 3" side laps sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.

**Surfacing:
(Optional)** **Chosen components must be applied in accordance with manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

Maximum Design Pressure: -45 psf. (See General Limitation # 9)



Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 20 ga. Type B, 33 ksi. wide rib steel deck secured to 1/4" thick structural supports spaced a maximum 84" o.c. with 5/8" diameter puddle welds spaced 6" o.c. along each support. The side laps are secured with #12-14 x 7/8" HWH fasteners spaced at maximum 12" o.c.

System Type C(2): Base layer of insulation is loosed laid. Top layer insulation is mechanically fastened through the base layer insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Thermal Barrier: Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, (Optional) DensDeck® DuraGuard® Roof Board, 1/2" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Barrier: Weather Watch® XT, UnderRoof™ 2 Polyester-Surfaced Leak Barrier or (Optional) UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard™ Perlite Roof Insulation).

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1" thick	N/A	N/A

Note: All layers of insulation shall be simultaneously fastened through the optional vapor barrier and thermal barrier (when present) into the steel deck; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Securock® Gypsum-Fiber Roof Board Minimum 0.25" thick	1, 2, 5, 7	1:1.33 ft²

Membrane: One layer of EverGuard® Freedom™ TPO with RapidSeam™ Technology adhered to insulation with a minimum 6" side lap fully self-adhered. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.
OR
One layer of EverGuard® Freedom™ TPO HW or EverGuard Extreme® Freedom™ TPO HW self-adhered with 3" side laps sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.



Surfacing: Chosen components must be applied in accordance with manufacturer's application instructions. All coatings must be listed within a current NOA.
(Optional)

1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

Maximum Design

Pressure: -60 psf. (See General limitation #7)



Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 20 ga. Type B, 33 ksi. wide rib steel deck secured to 1/4" thick structural supports spaced a maximum 84" o.c. with 5/8" diameter puddle welds spaced 6" o.c. along each support. The side laps are secured with #12-14 x 7/8" HWH fasteners spaced at maximum 12" o.c.

System Type C(3): Base layer of insulation is loosed laid. Top layer insulation is mechanically fastened through the base layer insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Thermal Barrier: Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, (Optional) DensDeck® DuraGuard® Roof Board, 1/2" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Barrier: Weather Watch® XT, UnderRoof™ 2 Polyester-Surfaced Leak Barrier or (Optional) UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard™ Perlite Roof Insulation).

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1" thick	N/A	N/A

Note: All layers of insulation shall be simultaneously fastened through the optional vapor barrier and thermal barrier (when present) into the steel deck; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Securock® Gypsum-Fiber Roof Board Minimum 0.375" thick	1, 2, 5, 7	1:1.45 ft ²

Membrane: One layer of EverGuard® Freedom™ TPO with RapidSeam™ Technology adhered to insulation with a minimum 6" side lap fully self-adhered. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.

OR

One layer of EverGuard® Freedom™ TPO HW or EverGuard Extreme® Freedom™ TPO HW self-adhered with 3" side laps sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.



Surfacing: Chosen components must be applied in accordance with manufacturer's application instructions. All coatings must be listed within a current NOA.
(Optional)

1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

Maximum Design

Pressure: -75 psf. (See General limitation #7)



Membrane Type: TPO

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga. Type B, wide rib steel deck ASTM A653, Grade 33, secured to 1/4" thick structural supports spaced at maximum 72 in. o.c. with Teks 5 fasteners fastened to the structural steel supports applied 6.0 in. o.c. Deck side laps are secured with Traxx/1 fasteners spaced at maximum 24" o.c.

System Type D: Insulation is loosed laid. Anchor sheet is mechanically fastened through the insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Thermal Barrier: Minimum 1/4" DensDeck® Roof Board, DensDeck® Prime® Roof Board, (Optional) DensDeck® DuraGuard® Roof Board, 1/2" Securock® Gypsum-Fiber Roof Board or 3/4" EnergyGuard™ Perlite Roof Insulation loose laid on steel deck.

Vapor Barrier: Weather Watch® XT, UnderRoof™ 2 Polyester-Surfaced Leak Barrier or (Optional) UnderRoof™ HT is self-adhered to the thermal barrier (excluding EnergyGuard™ Perlite Roof Insulation).

One or more layers of any of the following insulations.

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
EnergyGuard™ Polyiso Insulation, EnergyGuard™ RH Polyiso Insulation, EnergyGuard™ RN Polyiso Insulation Minimum 1.5" thick	N/A	N/A

Note: All layers of insulation shall be simultaneously fastened through the optional vapor barrier and thermal barrier (when present) into the steel deck; see anchor sheet below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Anchor Sheet: StormSafe™ Anchor Sheet is mechanically attached with Drill-Tec™ #12 Fasteners, Drill-Tec™ #14 Fasteners, Drill-Tec™ 3" Steel Plates, Drill-Tec™ 3" Standard Steel Plates and Drill-Tec™ ASAP 3S. Fasteners are secured through the 4" wide base sheet side laps and spaced 18 in. o.c. Two intermediate rows of fasteners are equally spaced between the laps and the fasteners are applied 18 in. o.c. in staggered rows.



Membrane: One layer of EverGuard® Freedom™ TPO with RapidSeam™ Technology adhered to insulation with a minimum 6" side lap fully self-adhered. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.

OR

One layer of EverGuard® Freedom™ TPO HW or EverGuard Extreme® Freedom™ TPO HW self-adhered with 3" side laps sealed with a 1.5" wide heat weld for automatic machine welding. Weld width shall be a minimum 2" width for hand welding. The membrane is broomed and rolled with a water filled roller weighing a minimum of 250 lbs. applied in accordance with manufacturer's application instructions.

**Surfacing:
(Optional)** **Chosen components must be applied in accordance with manufacturer's application instructions. All coatings must be listed within a current NOA.**

1. EverGuard® TPO Batten Seam Profile or EverGuard® TPO Standing Seam Profile installed in accordance with manufacturer's specifications and applicable Building Codes.
2. Topcoat® Membrane applied at 1 to 1.5 gal./sq.
3. Topcoat® TPO Red Primer applied at 0.5 gal./sq. prior to applying Topcoat® Membrane.

Maximum Design

Pressure: -52.5 psf; (See General limitation #7)



STEEL DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No.: 14-0204.04
Expiration Date: 04/29/19
Approval Date: 04/03/14
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